IN THE ABSTRACT:

Please replace the Abstract as follows:

-- A distributed dynamic channel allocation algorithm is disclosed for a multi-carrier CDMA cellular system having at least one mobile base station. The disclosed distributed dynamic channel allocation algorithm uses channel power measurements from both the requesting mobile station and the mobile base station attempting to allocate an available resource to the mobile station. The distributed dynamic channel allocation algorithm attempts to allocate the best available resource for the requesting mobile station, in terms of interference, while minimizing the amount of interruption that the allocated resource may cause to existing connections in neighboring cells. Thus, the distributed dynamic channel allocation algorithm follows a "least-interference, least-interruption" strategy. The distributed dynamic channel allocation algorithm of the present invention is load balancing, since it tends to assign new resources to mobile base station with lighter loads. Due to the mobility of the mobile base station, a mobile base station can cause interference to mobiles connected to another close-by mobile base station. The uplink and downlink channels are not paired and can be independently assigned to requesting mobile stations. A first dynamic channel allocation process assigns resources to new mobile stations, while a dynamic channel allocation process assigns a new resource to an existing mobile station. The dynamic channel allocation process (new mobile) and dynamic channel allocation process (new resource for existing mobile) process collected measurement information on network interference and load conditions, and assign a resource to a requesting mobile station in an optimum manner. --

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A distributed dynamic channel allocation algorithm is disclosed for a multi-carrier CDMA cellular system having at least one mobile base station. The disclosed distributed dynamic channel allocation algorithm used channel power measurements from both the requesting mobile station and the mobile base station attempting to allocate an available resource to the mobile station. The distributed dynamic channel allocation algorithm attempts to allocate the best available resource for the requesting mobile station, in terms of interference, while minimizing the amount of interruption that the allocated resource may cause to existing connections in neighboring cells. Thus, the distributed dynamic channel allocation algorithm follows a "least-interference, least-interruption" strategy. The distributed dynamic channel allocation algorithm of the present invention is load balancing, since it tends to assign new resources to mobile base station with lighter loads. Due to the mobility of the mobile base station, a mobile base station can cause interference to mobiles connected to another close-by mobile base station. The uplink and downlink channels are not paired and can be independently assigned to requesting mobile stations. A dynamic channel allocation process assigns resources to new mobile stations, while a dynamic channel allocation process assigns a new resource to an existing mobile station. The dynamic channel allocation process (new mobile) and dynamic channel allocation process (new resource for existing mobile) process collected measurement information on network interference and load conditions, and assign a resource to a requesting mobile station in an optimum manner.